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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/657,067      | 09/09/2003  | Shanghsien Rou       | 146712003220        | 9194             |

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MORRISON & FOERSTER LLP  
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EXAMINER

VERSTEEG, STEVEN H

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1753

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/657,067

Applicant(s)

ROU ET AL.

Examiner

Steven H. VerSteeg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-13 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 14-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/9/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: please insert the patent number for the parent application at [0001] and [0044].

Appropriate correction is required.

### *Claim Objections*

2. Claims 8 and 18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 8 and 18 each claim that the target is made by sintering. Claims 1 and 11, from which claims 8 and 18 respectively depend, already claims that the target is a "sintered target". Therefore, I believe that the limitation that the target is made by a sintering process is already present in the independent claims.

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-3, 8-13, and 18-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 8, 11, 13, and 20 of U.S. Patent No. 6,692,619 B1 in view of US 6,033,536 to Ichihara et al. (Ichihara).
5. For claim 1, Applicant claims a target for magnetron sputtering comprising a plurality of species that form a film comprising a material of a higher saturation magnetization than that of the species wherein the target is a sintered target.
6. Claim 1 of the patent claims all of the limitations of claim 1 except that claim 1 of the patent does not claim that the target is a sintered target.
7. For claim 11, Applicant claims a sputtering method comprising disposing a substrate opposite a target, applying a magnetic field to the target, applying a sputtering voltage to the target and sputtering a film on the substrate, the target comprising a plurality of species that form a film comprising a material of higher saturation magnetization than that of the species wherein the target is a sintered target.
8. Claim 11 of the patent claims all of the limitations of claim 11 except that claim 11 of the patent does not claim that the target is a sintered target.
9. For claim 20, Applicant claims a sputtering source, comprising a magnetic and means, made by a sintering process, for sputtering a plurality of species that form a film comprising a material of higher saturation magnetization than that of the species.

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10. Claim 20 of the patent claims all of the limitations of claim 20 except that claim 20 of the patent does not claim that the means for sputtering are made by a sintering process.

11. Thus, claims 1, 11, and 20 of the patent claim all of the limitations of claims 1, 11, and 20 respectively except for the sintering limitation.

12. Ichihara discloses that magnetron sputtering targets containing a plurality of species are conventionally made by pulverizing an ingot into powder, blending the powder and then molded and sintered at a high temperature under pressure to have vacuum hot pressing (col. 8, l. 1-14).

13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of the patent to utilize sintering to make the targets because of the desire to utilize conventional target making methods.

14. For claim 2, Applicant claims that the target is made of at least two kinds of powders of a lower saturation magnetization than that of a film deposited using the target. As noted above, claim 1 of the patent claims that a plurality of species are used. Ishihara, as noted above, use the species in powder form before blending. Thus, when the sintering method of Ishihara is used, it is inherent that the plurality of species would be in powder form before sintering as taught by Ishihara.

15. For claim 3, Applicant requires the target to sputter to form a film having a substantially uniform thickness and a substantially uniform composition throughout the film. Claim 3 of the patent fully encompasses the limitations claimed in claim 3.

16. For claim 8, Applicant requires the target to be made by a sintering process. As noted above, the sintering process is obvious based upon the teaching of Ishihara.

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17. For claim 9, Applicant requires the sintering to be a hot pressing process of a hot isostatic pressing process. As noted above, Ichihara discloses that the use of a hot pressing sintering process is obvious.

18. For claim 10, Applicant requires the sintered target to be formed from a material selected from the group consisting of simple element, an alloy, a compound and combination thereof.

Claim 8 of the patent claims that the target material uses alloys or simple elements.

19. For claim 12, Applicant claims that the target is made of at least two kinds of powders of a lower saturation magnetization than that of a film deposited using the target. As noted above, claim 11 of the patent claims that a plurality of species are used. Ishihara, as noted above, use the species in powder form before blending. Thus, when the sintering method of Ishihara is used, it is inherent that the plurality of species would be in powder form before sintering as taught by Ishihara.

20. For claim 13, Applicant requires the target to sputter to form a film having a substantially uniform thickness and a substantially uniform composition throughout the film. Claim 13 of the patent fully encompasses the limitations claimed in claim 13.

21. For claim 18, Applicant requires the target to be made by a sintering process. As noted above, the sintering process is obvious based upon the teaching of Ishihara.

22. For claim 19, Applicant requires the sintering to be a hot pressing process of a hot isostatic pressing process. As noted above, Ichihara discloses that the use of a hot pressing sintering process is obvious.

***Allowable Subject Matter***

23. Claims 2, 4-7, 12, and 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***General Information***

For general status inquiries on applications not having received a first action on the merits, please contact the Technology Center 1700 receptionist at (571) 272-1700.

For inquiries involving Recovery of lost papers & cases, sending out missing papers, resetting shortened statutory periods, or for restarting the shortened statutory period for response, please contact Denis Boyd at (571) 272-0992.

For general inquiries such as fees, hours of operation, and employee location, please contact the Technology Center 1700 receptionist at (571) 272-1300.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. VerSteeg whose telephone number is (571) 272-1348. The examiner can normally be reached on Mon - Thurs (6:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Steven H VerSteeg  
Primary Examiner  
Art Unit 1753

shv  
April 26, 2005